Dkt. 01216

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of: Group Art Unit:

PIERRE-YVES MENET et al Examiner:

Serial No.: not yet assigned

Filed: concurrently herewith

For: PROCESS AND DEVICE FOR APPLYING A RELEASE AGENT TO THE ROLLS OF A MACHINE FOR THE CONTINUOUS CASTING OF METAL STRIPS

PRELIMINARY AMENDMENT AND INFORMATION DISCLOSURE STATEMENT

Honorable Assistant Commissioner for Patents
Washington, DC 20231

Sir:

Before calculation of the filing fee, please amend the above-identified application as follows:

IN THE CLAIMS:

Please amend the claims as set forth hereinbelow and in the attached appendix:

3. (Amended) A coating process according to claim 1, characterised in that it additionally comprises an adjustment of the release product flow.

4. (Amended) A coating process according to claim 1, characterised in that the release product is a suspension, a solution or a mixture thereof.

LAW OFFICES
DENNISON, SCHEINER, SCHULTZ & WAKEMAN
612 CRYSTAL SQUARE 4
1745 JEFFERSON DAVIS HIGHWAY
ARLINGTON, VIRGINIA 22202-3417
703 412-1155

5. (Amended) A coating process according to claim 1, characterised in that the release agent includes graphite.

6. (Amended) A coating process according to claim 1, characterised in that the carrier fluid includes water.

7. (Amended) A coating process according to claim 1, characterised in that said adjustment of the composition comprises a dilution of a concentrate of release agent in said carrier fluid.

9. (Amended) A coating process according to claim 7, characterised in that said concentrate is selected from the group consisting of concentrated suspensions of graphite, boron nitride, colloidal silica, magnesia, organic products and mixtures thereof.

10. (Amended) A coating process according to claim 7, characterised in that said concentrate is a graphite gel containing between 20 and 30% by weight of graphite.

11. (Amended) A coating process according to claim 1, characterised in that said adjustment of the composition is carried out retroactively as a function of measurements carried out on said casting machine.

13. (Amended) A coating process according to claim 11, characterised in that said measurements include measurements selected from the group consisting of optical, laser, infrared, vibration, and mechanical tension measurements.

LAW OFFICES
DENNISON, SCHEINER, SCHULTZ & WAKEMAN
612 CRYSTAL SQUARE 4
1745 JEFFERSON DAVIS HIGHWAY
ARLINGTON, VIRGINIA 22202-3417
703 412-1155

14. (Amended) A coating process according to claim 1, characterised in that said adjustment of the composition is carried out in an automated way.

15. (Amended) A process for twin-roll continuous casting of metal strips including a coating process according to claim 1.

20. (Amended) A coating device according to claim 18, characterised in that the release agent feed (41) includes a tank (34) fit to contain a release agent concentrate (35).

21. (Amended) A coating device according to claim 17, characterised in that it includes means (38, 39) for homogenising the release product.

22. (Amended) A coating device according to claim 17, characterised in that the coating means include means (20) for controlling the flow of the spray means (5, 51, 52).

23. (Amended) A coating device according to claim 17, characterised in that said coating means include a spray means (5) for each roll (1A, 1B) and means (80 to 84) for displacing said spray means (5) along each roll.

24. (Amended) A coating device according to claim 17, characterised in that said coating means include at least two spray means (51, 52) for each roll (1A, 1B), said spray means forming an integral unit, and means (80 to 84) for displacing each said unit along each roll.

LAW OFFICES
DENNISON, SCHEINER, SCHULTZ & WAKEMAN
612 CRYSTAL SQUARE 4
1745 JEFFERSON DAVIS HIGHWAY
ARLINGTON, VIRGINIA 22202-3417
703 412-1155

26. (Amended) A device according to claim 23, characterised in that said displacement means (80 to 84) make it possible to displace said spray means in a to-and-fro motion along an axis parallel to the axis (A, B) of the rolls.

27. (Amended) A coating device according to claim 17, characterised in that said coating means include at least two spray means (5) for each roll and in that said spray means are placed on a line approximately parallel to the axis (A, B) of each said roll (1A, 1B).

28. (Amended) A coating device according to claim 17, characterised in that it comprises means for making at least one of the spray means oscillate relative to a specific axis.

29. (Amended) A coating device according to claim 17, characterised in that the spray means (5, 51, 52) are selected from the group including nozzles and guns.

30. (Amended) A coating device according to claim 17, characterised in that it includes means for controlling retroactively said adjustment of the composition as a function of measurements carried out on said casting machine.

31. (Amended) A coating device according to claim 17, characterised in that it includes means for controlling in an automated way said adjustment of the composition.

32. (Amended) A coating device according to claim 17, characterised in that said means (30 to 41) for adjusting the

LAW OFFICES
DENNISON, SCHEINER, SCHULTZ & WAKEMAN
612 CRYSTAL SQUARE 4
1745 JEFFERSON DAVIS HIGHWAY
ARLINGTON, VIRGINIA 22202-3417
703 412-1155

composition of the release product may form an adjustment device (42), which is distinct, detachable and/or able to be dismantled.

33. (Amended) A machine for twin-roll continuous casting of metal strips equipped with a coating device according to claim 17.

38. (Amended) A regulation process according to claim 36, characterised in that said adjustment of the composition is carried out retroactively as a function of measurements carried out on said casting machine.

40. (Amended) A regulation process according to claim 38, characterised in that said measurements include measurements selected from among optical, laser, infrared, vibration, or mechanical tension measurements.

41. (Amended) A regulation process according to claim 36, characterised in that said adjustment of the composition is carried out in an automated way.

LAW OFFICES
DENNISON, SCHEINER, SCHULTZ & WAKEMAN
612 CRYSTAL SQUARE 4
1745 JEFFERSON DAVIS HIGHWAY
ARLINGTON, VIRGINIA 22202-3417
703 412-1155

REMARKS

The claims have been amended to delete all multiple dependencies, and to generally place the claims in better form for US practice.

Attached is the search report of the corresponding EP application, together with copies of a number of references which are listed on the attached Form PTO-1449.

Respectfully submitted,

Ira J. Schultz
Registration No. 28666

LAW OFFICES
DENNISON, SCHEINER, SCHULTZ & WAKEMAN
612 CRYSTAL SQUARE 4
1745 JEFFERSON DAVIS HIGHWAY
ARLINGTON, VIRGINIA 22202-3417
703 412-1155

LAW OFFICES
DENNISON, SCHEINER, SCHULTZ & WAKEMAN
612 CRYSTAL SQUARE 4
1745 JEFFERSON DAVIS HIGHWAY
ARLINGTON, VIRGINIA 22202-3417
703 412-1155

SCANNED 3 SEP 2003

APPENDIX

IN THE CLAIMS:

3. (Amended) A coating process according to claim 1 [or 2], characterised in that it additionally comprises an adjustment of the release product flow.

4. (Amended) A coating process according to [any one of the claims 1 to 3] claim 1, characterised in that the release product is a suspension, a solution or a mixture thereof.

5. (Amended) A coating process according to [any one of the claims 1 to 4] claim 1, characterised in that the release agent includes graphite.

6. (Amended) A coating process according to [any one of the claims 1 to 5] claim 1, characterised in that the carrier fluid includes water.

7. (Amended) A coating process according to [any one of the claims 1 to 6] claim 1, characterised in that said adjustment of the composition comprises a dilution of a concentrate of release agent in said carrier fluid.

9. (Amended) A coating process according to claim 7 [or 8], characterised in that said concentrate is selected from [among] the group consisting of concentrated suspensions of graphite, boron nitride, colloidal silica, magnesia, organic products [or a mixture] and mixtures thereof.

10. (Amended) A coating process according to claim 7 [or

8], characterised in that said concentrate is a graphite gel containing between 20 and 30% by weight of graphite.

11. (Amended) A coating process according to [any one of the claims 1 to 10] claim 1, characterised in that said adjustment of the composition is carried out retroactively as a function of measurements carried out on said casting machine.

13. (Amended) A coating process according to claim 11 [or 12], characterised in that said measurements include measurements selected from [among] the group consisting of optical, laser, infrared, vibration, [or] and mechanical tension measurements.

14. (Amended) A coating process according to [any one of the claims 1 to 13] claim 1, characterised in that said adjustment of the composition is carried out in an automated way.

15. (Amended) A process for twin-roll continuous casting of metal strips including a coating process according to [any one of the claims 1 to 14] claim 1.

20. (Amended) A coating device according to claim 18 [or 19], characterised in that the release agent feed (41) includes a tank (34) fit to contain a release agent concentrate (35).

21. (Amended) A coating device according to [any one of

LAW OFFICES
DENNISON, SCHEINER, SCHULTZ & WAKEMAN
612 CRYSTAL SQUARE 4
1745 JEFFERSON DAVIS HIGHWAY
ARLINGTON, VIRGINIA 22202-3417
703 412-1155

the claims 17 to 20] claim 17, characterised in that it includes means (38, 39) for homogenising the release product.

22. (Amended) A coating device according to [any one of the claims 17 to 21] claim 17, characterised in that the coating means include means (20) for controlling the flow of the spray means (5, 51, 52).

23. (Amended) A coating device according to [any one of the claims 17 to 22] claim 17, characterised in that said coating means include a spray means (5) for each roll (1A, 1B) and means (80 to 84) for displacing said spray means (5) along each roll.

24. (Amended) A coating device according to [any one of the claims 17 to 22] claim 17, characterised in that said coating means include at least two spray means (51, 52) for each roll (1A, 1B), said spray means forming an integral unit, and means (80 to 84) for displacing each said unit along each roll.

26. (Amended) A device according to [any one of the claims 23 to 25] claim 23, characterised in that said displacement means (80 to 84) make it possible to displace said spray means in a to-and-fro motion along an axis parallel to the axis (A, B) of the rolls.

27. (Amended) A coating device according to [any one of the claims 17 to 22] claim 17, characterised in that said

LAW OFFICES
DENNISON, SCHEINER, SCHULTZ & WAKEMAN
612 CRYSTAL SQUARE 4
1745 JEFFERSON DAVIS HIGHWAY
ARLINGTON, VIRGINIA 22202-3417
703 412-1155

coating means include at least two spray means (5) for each roll and in that said spray means are placed on a line approximately parallel to the axis (A, B) of each said roll (1A, 1B).

28. (Amended) A coating device according to [any one of the claims 17 to 27] claim 17, characterised in that it comprises means for making at least one of the spray means oscillate relative to a specific axis.

29. (Amended) A coating device according to [any one of the claims 17 to 28] claim 17, characterised in that the spray means (5, 51, 52) are selected from the group including nozzles and guns.

30. (Amended) A coating device according to [any one of the claims 17 to 29] claim 17, characterised in that it includes means for controlling retroactively said adjustment of the composition as a function of measurements carried out on said casting machine.

31. (Amended) A coating device according to [any one of the claims 17 to 30] claim 17, characterised in that it includes means for controlling in an automated way said adjustment of the composition.

32. (Amended) A coating device according to [any one of the claims 17 to 31] claim 17, characterised in that said means (30 to 41) for adjusting the composition of the release

LAW OFFICES
DENNISON, SCHEINER, SCHULTZ & WAKEMAN
612 CRYSTAL SQUARE 4
1745 JEFFERSON DAVIS HIGHWAY
ARLINGTON, VIRGINIA 22202-3417
703 412-1155

product may form an adjustment device (42), which is distinct, detachable and/or able to be dismantled.

33. (Amended) A machine for twin-roll continuous casting of metal strips equipped with a coating device according to [any one of the claims 17 to 32] claim 17.

38. (Amended) A regulation process according to claim 36 [or 37], characterised in that said adjustment of the composition is carried out retroactively as a function of measurements carried out on said casting machine.

40. (Amended) A regulation process according to claim 38 [or 39], characterised in that said measurements include measurements selected from among optical, laser, infrared, vibration, or mechanical tension measurements.

41. (Amended) A regulation process according to [any one of the claims 36 to 40] claim 36, characterised in that said adjustment of the composition is carried out in an automated way.

LAW OFFICES
DENNISON, SCHEINER, SCHULTZ & WAKEMAN
612 CRYSTAL SQUARE 4
1745 JEFFERSON DAVIS HIGHWAY
ARLINGTON, VIRGINIA 22202-3417
703 412-1155